

Title (en)
Detection and ranging apparatus

Title (de)
Detektions- und Entfernungsmessungsvorrichtung

Title (fr)
Appareil de détection et de mesure de la distance

Publication
EP 2846167 A1 20150311 (EN)

Application
EP 14181338 A 20140819

Priority
JP 2013185466 A 20130906

Abstract (en)
A detection and ranging apparatus (10) includes a probe signal generating unit (120) that generates a probe signal according to a first modulation method, a transmitting unit (130) that transmits the generated probe signal, a receiving unit (140) that receives a signal including at least one of a reflection signal and an interference signal according to a second modulation method, a demodulating unit (150) that demodulates the reception signal according to a method corresponding to at least one of the first modulation method and the second modulation method, an interference signal detecting unit (160) that detects the interference signal from the demodulated signal, an interference signal identifying unit (170) that identifies specifications and a delay amount of the interference signal from the demodulated signal, and an interference signal removing unit (180) that removes the interference signal within the reception signal by using the identified specifications and the identified delay amount of the interference signal. Thus the detected interference signal is suppressed or removed from the reception signal and the detection and ranging apparatus can operate in an environment where a plurality of detection and ranging apparatuses that respectively use different modulation methods are present.

IPC 8 full level
G01S 7/02 (2006.01); **G01S 13/32** (2006.01); **G01S 13/34** (2006.01); **G01S 13/58** (2006.01)

CPC (source: EP US)
G01S 7/023 (2013.01 - EP US); **G01S 7/0234** (2021.05 - EP US); **G01S 7/0235** (2021.05 - EP US); **G01S 7/354** (2013.01 - US); **G01S 13/325** (2013.01 - EP US); **G01S 13/34** (2013.01 - US); **G01S 13/345** (2013.01 - EP US); **G01S 13/584** (2013.01 - EP US)

Citation (applicant)
• JP H11166968 A 19990622 - FURUKAWA ELECTRIC CO LTD
• JP 2006300550 A 20061102 - DENSO CORP

Citation (search report)
• [X] EP 2045612 A2 20090408 - FUJITSU LTD [JP], et al
• [X] EP 2390679 A1 20111130 - MITSUBISHI ELEC R&D CT EUROPE [GB], et al
• [XI] EP 1840595 A2 20071003 - FUJITSU TEN LTD [JP], et al
• [A] US 2010159865 A1 20100624 - FUDGE GERALD L [US]
• [A] US 2011065409 A1 20110317 - KENINGTON PETER [GB]

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WO2017069679A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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EP 2846167 A1 20150311; JP 2015052527 A 20150319; JP 6176007 B2 20170809; US 2015070204 A1 20150312; US 9645230 B2 20170509

DOCDB simple family (application)
EP 14181338 A 20140819; JP 2013185466 A 20130906; US 201414464386 A 20140820